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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/441,857	11/18/1999	HAO-PENG XU DUFFY	52494/2202	5116

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EXAMINER

CANELLA, KAREN A

ART UNIT	PAPER NUMBER
1642	(7)

DATE MAILED: 11/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/441,857	Applicant(s) Duffy et al
	Examiner Karen Canella	Art Unit 1642
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --		
<b>Period for Reply</b> A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3 months</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.		
- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.		
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.		
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.		
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).		
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).		
<b>Status</b>		
1) <input type="checkbox"/> Responsive to communication(s) filed on _____.		
2a) <input type="checkbox"/> This action is FINAL.      2b) <input checked="" type="checkbox"/> This action is non-final.		
3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11; 453 O.G. 213.		
<b>Disposition of Claims</b>		
4) <input checked="" type="checkbox"/> Claim(s) <u>1-3, 7-12, and 70</u> is/are pending in the application.		
4a) Of the above, claim(s) _____ is/are withdrawn from consideration.		
5) <input type="checkbox"/> Claim(s) _____ is/are allowed.		
6) <input checked="" type="checkbox"/> Claim(s) <u>1, 7-12, and 70</u> is/are rejected.		
7) <input checked="" type="checkbox"/> Claim(s) <u>2 and 3</u> is/are objected to.		
8) <input type="checkbox"/> Claims _____ are subject to restriction and/or election requirement.		
<b>Application Papers</b>		
9) <input type="checkbox"/> The specification is objected to by the Examiner.		
10) <input type="checkbox"/> The drawing(s) filed on _____ is/are a) <input type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).		
11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.		
12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner.		
<b>Priority under 35 U.S.C. §§ 119 and 120</b>		
13) <input type="checkbox"/> Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) <input type="checkbox"/> All b) <input type="checkbox"/> Some* c) <input type="checkbox"/> None of: 1. <input type="checkbox"/> Certified copies of the priority documents have been received. 2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____. 3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). *See the attached detailed Office action for a list of the certified copies not received.		
14) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e). a) <input type="checkbox"/> The translation of the foreign language provisional application has been received.		
15) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.		
<b>Attachment(s)</b>		
1) <input type="checkbox"/> Notice of References Cited (PTO-892)		
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)		
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____		
4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <u>16</u>		
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)		
6) <input type="checkbox"/> Other: _____		

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***Response to Amendment***

1. Claims 2, 3, 7, 11 and 12 have been amended. Claims 4-6, 13-69 and 71-80 have been canceled. Claims 1-3, 7-12 and 70 are under consideration.
2. After review and reconsideration, the finality of the Office action of Paper no. 12 has been withdrawn.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.
4. Claim 70 is objected to because of the following informalities: Claim 70 is dependent in part upon canceled claim 5. Appropriate correction is required.
5. Claims 2 and 3, and claims 7-12 in part, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claims 1, 7-12 and 70 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 is drawn to an isolated nucleic acid comprising a sequence encoding a wth3 protein. Claim 70 embodies the nucleic acid of claim 1 operatively linked to a regulatory sequence. Claims 7-12 are drawn in part to the nucleic acid of claim 1. The specification states on page 3, lines 15-18 that the isolate nucleic acids of the invention “can” encode an amino acid sequence comprising SEQ ID NO:12 from about amino acid residue number 1 to amino acid residue number 175 and that the nucleic acid sequence “can” be SEQ ID NO:7 or SEQ ID NO:11. Given the broadest reasonable interpretation, the nucleic acids of the

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invention are not confined to those encoding SEQ ID NO:12 and can include allelic variants, splice variants and nucleic acids encoding homologs and variant proteins differing in structure and function from SEQ ID NO:12.

The specification describes the nucleic acid sequences of SEQ ID NO:7 and 11 and the amino acid sequence of SEQ ID NO:12. The specification does not describe allelic variants or splice variants. The general knowledge of the art concerning allelic, polymorphic or splice variants does not provide any indication of how the structure of the polynucleotides encoding SEQ ID NO:12 are representative of the undisclosed allelic, polymorphic or splice variant sequences. The common attributes of this genus has not been described. With the exception of the nucleic acids encoding SEQ ID NO:12, one of skill in the art would conclude that the applicant was not in possession of the claimed genus because the species encoding SEQ ID NO:12 are not representative of all the variants of the genus and therefore insufficient to support the claim.

Further, the claims are broadly drawn to encompass nucleic acid encoding wth3 proteins beyond those limited to SEQ ID NO:12. The specification and claim 1 do not indicate what distinguishing attributes are shared by members of the genus of wth3 proteins. Thus, the specification does not place any limits on the number of amino acid substitutions, deletions, insertions or additions that may be made to SEQ ID NO:12 with the scope of a wth3 protein. Thus the scope of claim 1 is highly varied because a significant number of both structural and functional differences between members of the claimed genus is encompassed by the claim. Since the claim fails to limit the common attributes of the claimed genus in terms of both structure and function, and because the genus is highly variant, the polynucleotides encoding SEQ ID NO:12 are insufficient to describe the genus of polynucleotides encoding a wth3 protein. One of skill in the art would reasonably conclude that the specification fails to provide a representative number of species to describe the genus, and thus, the applicant was not in possession of the claimed genus at the time of filing.

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7. All other rejections and objections as set forth in Paper no. 12 are withdrawn.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen Canella whose telephone number is (703) 308-8362. The examiner can normally be reached on Monday through Friday from 8:30 am to 6:00 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa, can be reached on (703) 308-3995. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Karen A. Canella, Ph.D.

Patent Examiner, Group 1642

November 12, 2002

*Karen A. Canella*  
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